

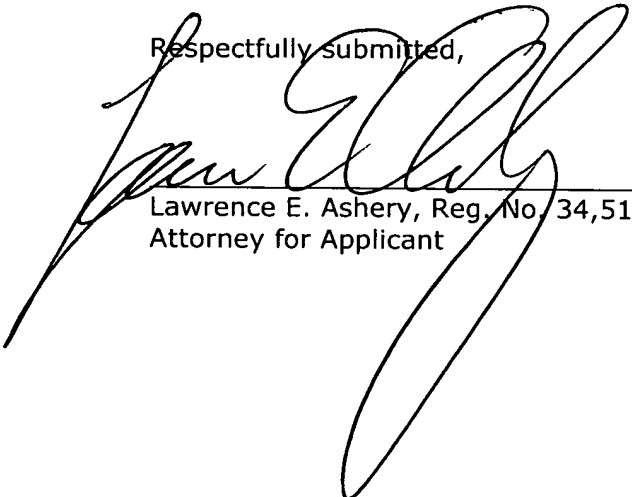
Amendment to the Abstract:

The Abstract has been amended. A revised Abstract is attached.

ABSTRACT

A piezoelectric vibrator ~~of the present invention~~ has a laminated structure where silicon oxide films ~~(3)~~ having substantially the same thickness are disposed at both faces of piezoelectric plate ~~(1)~~ as dielectric films. Using the structure discussed above, because dielectric films are formed at the both faces of the piezoelectric plate ~~(1)~~, a difference of internal stress, which is caused by a difference of stress relaxation in a long term and affects the piezoelectric plate ~~(1)~~ or the dielectric film, becomes small. Therefore, a warp can be considerably small. As a result, a change, which is caused by the warp of the piezoelectric vibrator, in a resonance frequency of the piezoelectric vibrator can be small.

Respectfully submitted,


Lawrence E. Ashery, Reg. No. 34,515
Attorney for Applicant

LEA/dmw

Attachment: Abstract

Dated: June 28, 2004

P.O. Box 980
Valley Forge, PA 19482
(610) 407-0700

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication.

Express Mail Number: EV 426 718 143 US
Date of Deposit: June 28, 2004

I hereby certify that this correspondence is being deposited, under 37 C.F.R. § 1.10 and with sufficient postage, using the "Express Mail Post Office to Addressee" service of the United States Postal Service on the date indicated above and that the deposit is addressed to Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313-1450.


Kathleen Libby

ABSTRACT

A piezoelectric vibrator has a laminated structure where silicon oxide films having substantially the same thickness are disposed at both faces of piezoelectric plate as dielectric films. Using the structure discussed above, because dielectric films are formed at the both faces of the piezoelectric plate a difference of internal stress, which is caused by a difference of stress relaxation in a long term and affects the piezoelectric plate or the dielectric film, becomes small. Therefore, a warp can be considerably small. As a result, a change, which is caused by the warp of the piezoelectric vibrator, in a resonance frequency of the piezoelectric vibrator can be small.